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(21) International Application Number: PCT/CA99/01024 (22) International Filing Date: 4 November 1999 (04.11.99) (30) Priority Data: 60/107,006 4 November 1998 (04.11.98) US (71) Applicant (for all designated States except US): HEMOSOL INC. [CA/CA]; 115 Skyway Avenue, Etobicoke, Ontario M9W 4Z4 (CA). (72) Inventors; and (75) Inventors/Applicants (for US only): BELL, David, Nicholson [CA/CA]; 1089 Goodson Crescent, Brampton, Ontario L6H 4A7 (CA). SKEA, Danna, Lynn [CA/CA]; 5940 Glen Erin Drive, Unit #20A, Mississauga, Ontario L5M 5W9 (CA). HEDGE, Phyllis, Robin [CA/CA]; 6806 Wellington County Road 34, RR #22, Cambridge, Ontario N3C 2V4 (CA). (74) Agent: BERESKIN & PARR; 40 King Street West, 40th floor, Toronto, Ontario M5H 3Y2 (CA).	(81) Designated States: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG). Published <i>With international search report.</i> <i>Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.</i>	
(54) Title: METHODS FOR THE PRODUCTION OF TCR GAMMA DELTA T CELLS		
(57) Abstract The method for obtaining and expanding TcR $\gamma\delta^+$ T cells in culture is described. The method involves: 1) culturing cells from a sample containing TcR $\gamma\delta^+$ T cells or precursors thereof in a first culture medium comprising a T cell mitogen and at least two cytokines and 2) culturing the cells obtained in step 1) in a second culture medium comprising at least two cytokines. Preferably, the method comprises 1) culturing the cells in a first culture medium comprising (a) a T cell mitogen, (b) interleukin-2 and (c) interleukin-4; and 2) culturing the cells obtained in step 1) in a second culture medium comprising (i) interleukin-2 and (ii) interleukin-4 to obtain TcR $\gamma\delta^+$ T cells. The TcR $\gamma\delta^+$ T cells obtained by the method can be used in a variety of experimental, therapeutic and commercial applications.		